

## CLAIMS

1. A positive electrode material for non-aqueous electrolyte lithium ion battery, comprising:

5 an oxide containing lithium and nickel; and  
a lithium compound deposited on a surface of the oxide, the lithium compound covering nickel present on the surface of the oxide.

2. A positive electrode material according to claim 1,

10 wherein, when the lithium compound is deposited to cover substantially an entire surface of the oxide, thickness of a cover layer of the lithium compound ranges from 5 nm to 1  $\mu$ m.

3. A positive electrode material according to claim 1,

15 wherein, when the lithium compound is deposited to sprinkle on the surface of the oxide, volume of the lithium compound ranges from 0.5 to 10 when volume of a positive electrode active material is set to 100.

4. A positive electrode material according to claim 1,

20 wherein the lithium compound includes lithium ion conductivity.

5. A positive electrode material according to claim 1,

wherein, the lithium compound is at least one selected from a group consisting lithium phosphate, lithium phosphorus oxynitride,  $\text{Li}_2\text{O}\text{-B}_2\text{O}_3$  compound,  $\text{Li}_2\text{O}\text{-B}_2\text{O}_3\text{-LiI}$  compound,  $\text{Li}_2\text{O}\text{-SiS}_2$  compound,  $\text{Li}_2\text{S}\text{-SiS}_2\text{-Li}_3\text{PO}_4$  compound, lithium cobalt oxide, lithium manganese oxide,  $\text{LiFePO}_4$ , and lithium hydroxide.

6. A non-aqueous electrolyte lithium ion battery, comprising:

30 a positive electrode material including: an oxide containing lithium and

nickel; and a lithium compound deposited on a surface of the oxide, the lithium compound covering nickel present on the surface of the oxide.

7. An assembled battery, comprising:

5 a non-aqueous electrolyte lithium ion battery including: a positive electrode material having: an oxide containing lithium and nickel; and a lithium compound deposited on a surface of the oxide, the lithium compound covering nickel present on the surface of the oxide,

wherein a plurality of the lithium ion batteries are connected and installed

10 in series or in parallel.

8. A combined assembled battery, comprising:

an assembled battery comprising: a non-aqueous electrolyte lithium ion battery including: a positive electrode material having: an oxide containing lithium and nickel; and a lithium compound deposited on a surface of the oxide, the lithium compound covering nickel present on the surface of the oxide,

wherein a plurality of the lithium ion batteries are connected and installed in series or in parallel.

20 9. A combined assembled battery according to claim 8,

wherein the assembled battery is independently detachable.

10. A combined assembled battery according to claim 8,

wherein the combined assembled battery is mounted on a vehicle.